

supplying a mixture of an etching gas and an acid neutralizing gas into a vacuum chamber [on] in which said structure is supported to form a water soluble material of sidewall polymer rails left behind on the Al/Cu metal line from the RIE process, [to permit removing] thereby permitting removal of the water soluble material with deionized water.

14. (Amended) The integration metal etch tool of claim 13 wherein [the] said separate chamber means for a water-only plasma process allows conducting said water-only plasma process [is conducted] at temperatures between about 175°C-200°C to limit the thickness of the sidewall polymer.

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15. (Amended) The integration metal tool of claim 13 wherein [the] said separate chamber means for a water-only plasma process permits conducting said water-only plasma process [is conducted] at temperatures greater than 200°C to form a passivation layer on the Al/Cu metal line surface prior to forming a water soluble material of sidewall polymer rails [and removing the water soluble material with deionized water].

16. (Amended) In a metal etch tool for removing post-RIE polymer rails formed on a Al/Cu metal line of a semiconductor structure, the improvement comprising: an integrated metal etch tool comprising [a] separate chamber means for supplying a mixture of an etching gas and [on] an acid neutralizing gas into a vacuum chamber in which said composite structure is supported to form a water soluble material of [a] sidewall

polymer rails left behind on a Al/Cu metal line from the RIE process; [to] said separate chamber means permitting removal of [permit removing] photo-resist from said structure by chemical downstream etching [method].

17. ~~(a)~~ (Amended) The integration metal etch tool of claim 16 wherein said separate chamber means permitting removal of photo-resist by [the] chemical down stream etching [is] allows said chemical down stream etching to be conducted at temperatures greater than 200°C to form a passivation layer on the Al/Cu metal line surface.

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CORRECTED VERSION OF CLAIMS

13. In a metal etch tool for removing post-RIE polymer rails formed on a Al/Cu metal line of semiconductor structure, the improvement comprising: an integrated metal etch tool comprising separate chamber means for

forming a water-only plasma process to strip the photo-resist layer of a semiconductor composite structure previously subjected to a RIE process; and separate chamber means for

supplying a mixture of an etching gas and an acid neutralizing gas into a vacuum chamber in which said structure is supported to form a water soluble material of sidewall polymer rails left behind on the Al/Cu metal line from the RIE process, thereby permitting removal of the water soluble material with deionized water.

14. The integration metal etch tool of claim 13 wherein said separate chamber means for a water-only plasma process allows conducting said water only plasma process at temperatures between about 175°C-200°C to limit the thickness of the sidewall polymer.

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15. The integration metal tool of claim 13 wherein said separate chamber means for a water-only plasma process permits conducting said water-only plasma process at temperatures greater than 200°C to form a passivation layer on the Al/Cu metal line surface prior to forming a water soluble material of sidewall polymer rails.

16. In a metal etch tool for removing post-RIE polymer rails formed on a Al/Cu metal line of a semiconductor structure, the improvement comprising: an integrated metal etch tool comprising separate chamber means for supplying a mixture of an etching gas and an acid neutralizing gas into a vacuum chamber in which said composite structure is supported to form a water soluble material of sidewall polymer rails left behind on a Al/Cu metal line from the RIE process; said separate chamber means permitting removal of photo-resist from said structure by chemical downstream etching.

17. (a) The integration metal etch tool of claim 16 wherein said separate chamber means permitting removal of photo-resist by chemical down stream etching allows said chemical down stream etching to be conducted at